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ABSTRACT

The manual describes audiology services offered at the Model Secondary School for the Deaf (MSSD). Components are listed for diagnostic services, instructional services, program development, training, and publications. Testing and reporting procedures for MSSD students are outlined. Testing includes pure-tone air conduction testing, tympanometry, acoustic reflex testing, and audiometric speech testing. Written reports of the audiologic evaluation are made for students' files, intake evaluation, and students' parents. Goals and services of the MSSD amplification program are described. The school's communications lab offers minor hearing aid repairs, maintenance and calibration of other equipment, consultation with faculty about equipment, technology design, equipment evaluation, and instruction about the equipment for facility and students, Otologic (ear specialist) services are briefly addressed. Finally, MSSD's training programs for graduate students in audiology are described. Sample forms are included throughout the manual. (CL)

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Audiology Services Manual

Communications Department
Model Secondary School for the Deaf

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INTRODUCTION

This manual answers the questions that the faculty and staff of the Model Secondary School for the Deaf and professionals from other schools, colleges, universities, and outside agencies may have about audiology services at the Model Secondary School for the Deaf.

This manual provides (1) a description of the audiology services offered at the Model Secondary School for the Deaf (MSSD); (2) procedural and reporting information for the faculty, staff, student trainees, and Clinical Fellowship Year (CFY) audiologists; and (3) information about graduate practicum experiences and CFY internships available at the Model Secondary School for the Deaf.

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Audiology Services Manual

AUDIOLOGY SERVICES

Diagnostic Services

A. Audiometric evaluation
   1. Pure-tone air conduction
   2. Evaluation of middle ear function
   3. Audiometric discrimination testing
   4. Otoscopy
B. Hearing aid evaluation
C. Consultation regarding audiometric test data with students, parents/guardians, faculty, staff, physicians, hearing aid dealers, and involved third-party agencies.

Instructional Services

A. Identification of amplification needs
B. Selection, fitting, and procurement of personal hearing aids
C. Routine hearing aid checks
D. Selection and maintenance of instructional area amplification systems
E. Teaching Communications Department courses, hearing aid orientation, auditory training, auditory communication
F. Team teaching in various instructional departments
G. Hearing aid checks
H. Daily hearing aid maintenance program

Program Development

A. Development of auditory curricula
B. Development of diagnostic audiology procedures
C. Development of equipment evaluation and maintenance procedures
D. Design and development of equipment for specific diagnostic, instructional, or therapeutic applications
E. Technical discussions with hearing aid dealers and equipment manufacturers
F. Consultation with outside professionals

G. Development of interagency procedures

H. Development of interdepartmental procedures

Training

A. Identification of MSSD's needs for audiology services

B. Inservice education for faculty and staff on audiology procedures; interpretation of audiometric data; use, care, and maintenance of amplification equipment

C. Supervision of practicum graduate students from affiliated colleges and universities

D. Participation in professional seminars, workshops, and meetings

E. Supervision of Clinical Fellowship Year interns

Publications

A. Communication activity supplements for instructional course guides

B. Guide to auditory communication activities

C. Laboratory reports

D. Other

AUDIOLOGIC EVALUATION

Testing Procedures

New MSSD students are given a complete diagnostic evaluation. MSSD seniors are given a complete diagnostic evaluation during their last year of school. Any student is given a complete diagnostic evaluation if requested by a medical referral, a parent, or a third-party agency.

A. Pure-tone air conduction testing

Pure-tone air conduction thresholds are established if possible at octave intervals from 125 Hz through 8,000 Hz and at mid-octave intervals if additional information may be gained.

B. Tympanometry

Tympanograms are obtained bilaterally. Pure-tone bone conduction testing is done only when the pure-tone average is better than 60 dB and/or when the tympanometry results and/or otoscopy indicate a possibility of conductive overlay.

C. Acoustic reflex testing

Acoustic reflex testing is performed at 500 Hz, 1,000 Hz, 2,000 Hz, and 4,000 Hz bilaterally.

D. Audiometric speech testing

Audiometric speech testing includes a speech awareness threshold, the MSSD spondee test, and the Word Intelligibility by Picture Identification (WIPI) test. Other discrimination testing such as Modified Rhyme, traditional phonetically balanced (PB) lists, vowel discrimination, synthetic sentences, or WIPI sentences are conducted at the discretion of the examiner and depending on the ability of the student.

1. MSSD spondee test

Each section of the MSSD spondee test is presented at MCL +6 dB. The spondee identification task is attempted first; if the student succeeds, two Speech Reception Threshold (SRT) procedures are attempted:

a) A closed set SRT procedure using the selected spondees of the word identification task.

b) An open set SRT procedure using the children's spondee lists.

If the student cannot perform the spondee identification task the same/different tasks are attempted.

2. Word Intelligibility by Picture Identification (WIPI) test

The WIPI is presented at MCL +6 dB. All words are presented without a carrier phrase.

a) During a complete audiologic evaluation:

1) One word list to the better ear under an earphone (without visual cues).

2) One word list to the better ear with visual cues.

b) During a hearing aid check:

1) One word list via each mode (auditory only, auditory + visual) in the sound field (unaided).

2) Same as above, aided.

E. Tolerance level testing

An uncomfortable level (UCL) and most comfortable level (MCL) are established.

F. Hearing aid check

The audiometric evaluation includes a routine hearing aid check if the student owns a personal hearing aid. (see: Amplification Program)

Reporting Procedure

A. Audiologic Evaluation Summary

A written summary is attached to each audiogram. This summary is distributed within the MSSD to the student's academic advisor, school counselor, resident advisor, and the Communications Department file.

When a funding agency such as Vocational Rehabilitation Services or Crippled Children's Services requires a longer narrative report for procurement of a hearing aid, such a report is written.

B. Intake Evaluation Report

1. During an Intake Evaluation of a new student (usually prior to enrollment), audiologic impressions are written on the student's communication profile. These impressions include:
   a) Description of hearing loss
   b) Description of middle ear function
   c) Description of student's use of residual hearing alone, and in combination with speechreading cues, for speech perception
   d) Description of student's use of amplification

2. Following the Intake Evaluation, follow-up recommendations are recorded. These may include:
   a) Any additional testing
   b) Auditory training
   c) Medical follow-up
   d) Procurement or repair of hearing aid
   e) Procurement of earmold

C. Report to parent/guardian

Following any evaluation, a letter is sent to the student's parent or guardian. The letter informs the parent that testing has been completed and invites the parent to contact the audiologist for copies of the results or for a discussion of the results.

D. Communications Department file

A running contact sheet (log) is kept in the audiology section of the student's Communications Department file. This log notes any contact the student has with the Communications Lab and audiologists.

Forms

Model Secondary School for the Deaf

Gallaudet College

Kendall Green
Washington, D.C. 20002

AUDIOLOGIC EVALUATION

Student Name:

Social Security No.: Age:

Date of Evaluation:

Audiologist:

	Right	Left	Sound Field
PTA			
SAT			
SRT Closed / Open			
MCL			
UCL			

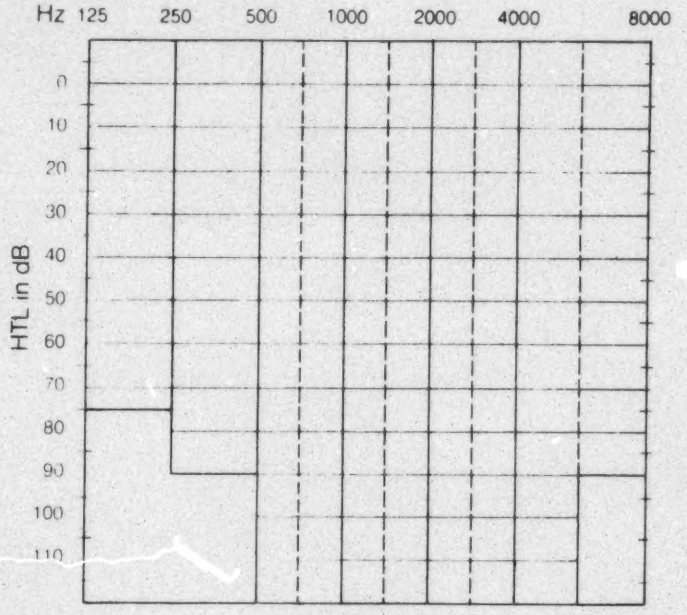
SPEECH AUDIOMETRY

MLV_____ Recorded_____

Test Material	Right	Left	Sound Field

AUDIOGRAM

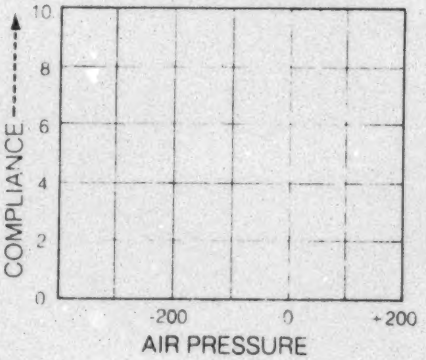
Audiometer ANSI 1969



LEGEND

O – Right Ear
X – Left Ear
A – Aided
CNE – Could Not Establish
DNT – Did Not Test
PTA – Pure Tone Average
SAT – Speech Awareness Threshold
SRT – Speech Reception Threshold
MCL – Most Comfortable Level
UCL – Uncomfortable Level
SF – Sound Field

IMPEDANCE AUDIOMETRY



	500	1k	2k	4k
RE				
LE				

STAPEDIAL REFLEX

Response Consistency:

Comments:

cc: Communication Dept.
Academic Advisor
School Counselor
Resident Advisor

AUDIOLOGIC EVALUATION SUMMARY

Name: _____

Etiology:

Date of Birth:

Date of Evaluation:

Examiner:

Age of Onset:

Referral:

Age Loss Confirmed:

Associated Medical Problems:

Otologic History:

Current Problems:

Description of Hearing Loss:

HEARING AID USE:

Age at Initial Amplification:

Make:

Use of Hearing Aid:

Model:

Serial No:

Ear:

Funding Source:

Date Purchased:

COMMENTS FOR CLASSROOM TEACHERS:

cc: Communication Department
Academic Advisor
School Counselor
Resident Advisor

Model Secondary School for the Deaf
Gallaudet College
Kendall Green
Washington, D.C. 20002

Model Secondary School for the Deaf

Gallaudet College

Kendall Green • Washington, D.C. 20002

Date: _____

Dear _____

_____ has been seen for hearing testing at school. If you would like to discuss the results of the hearing tests or would like a copy of the audiometric report, please contact me at MSSD.

Generally, the hearing tests show:

- ☐ no change in hearing
- ☐ examination by ear doctor needed
- ☐ present hearing aid ok
- ☐ hearing aid repairs needed
- ☐ new hearing aid needed

Comments: _____

_____

_____

_____

_____

_____

Sincerely,

Audiologist

MSSD AMPLIFICATION PROGRAM

Goals

A. Each student who can benefit from amplification will wear appropriate amplification.

B. Each student with a personal hearing aid will have a properly functioning hearing aid.

C. Each student will know care, function, and use of his or her personal hearing aid and/or school-owned amplification equipment.

Services

A. Annual audiometric hearing aid check and analysis by an MSSD audiologist.

B. Supervision of routine hearing aid checks by an advisor and/or audiologist to insure optimal functioning of the student's hearing aid and to identify problems reported by the student.

C. Hearing aid station facilities (Communications Lab) during the school day for the student and advisor to perform hearing aid checks. Supplies are available for routine maintenance and care of the hearing aid.

D. Availability of minor maintenance and repairs for a hearing aid at the hearing aid station.

E. Appropriate classroom amplification based on environmental conditions, academic area, and teaching methods.

F. Faculty/staff, parent/guardian, and student education in use and maintenance of amplification systems.

Procedures for Obtaining Services

A. Routine hearing aid check

The student's advisor should supervise routine hearing aid checks to insure optimal functioning of the hearing aid.

B. Hearing aid station services

The hearing aid station is open during the school day for student and faculty use. Supplies are available to students and faculty for routine maintenance and care of personal hearing aids.

C. Hearing aid repair

A malfunctioning hearing aid can be brought to the audiologist and/or engineer on duty at the hearing aid station to determine the source of a problem.

1. Minor maintenance and repairs by the audiologist or engineer on duty at the hearing aid station can be provided while the student waits.
2. If it is necessary to leave the hearing aid for repairs, a Hearing Aid Lab Referral form or a note must be completed by the student or advisor and attached to the hearing aid. Information on the form or note must include make, model, and serial number of the hearing aid; student's name; advisor's name; and the suspected problem or a description of the problem.
3. If the source of the problem cannot be determined by the audiologist/engineer and/or if it is necessary to send the hearing aid to the dealer/factory for repairs, the hearing aid must be packaged for mailing or taken to the dealer. The audiologist or engineer provides a description of the problem, cost of repairs, source of payment/funding, third-party payment procedures when

applicable, and any other necessary repair information prior to sending the hearing aid to the dealer/factory. The audiologist or engineer inspects the hearing aid when it is returned.

4. No hearing aid should be left at the hearing aid station without a Hearing Aid Lab Referral form or a note attached.
5. When a hearing aid is being repaired, alternative amplification in the form of a loaner aid or classroom amplification is provided whenever possible. (see: Forms--Hearing Aid Loan Agreement.)
6. A student's parent/guardian and advisor are contacted each time repair is required on a student's hearing aid.

D. Hearing aid evaluation

A hearing aid evaluation is scheduled by the audiologist when it is determined to be necessary, based on the hearing aid check results or upon request of the student, parent, or advisor.

E. Hearing aid check

A hearing aid check, including audiometric testing (aided and unaided), electro-acoustic analysis of the hearing aid, and a review of the student's amplification needs based on educational and communication status, should be performed annually for all students with personal hearing aids.

1. Hearing aid checks are scheduled by the audiologist.
2. A student, parent, or teacher with specific questions about the functioning of a student's hearing aid or whether a student's hearing aid is meeting his or her needs can request a hearing aid check or a conference with the audiologist to review the results of the most recent hearing aid check.
3. Reports on a hearing aid check are sent to the student's advisor, CSS counselor, resident advisor, parents/guardians, and any involved agency. A copy is also retained in the Communications Department file. The student's advisor should review the results of the hearing aid check with the student, audiologist, and parents.

F. Liaison between third-party agencies

When necessary, the audiologist serves as the referring agent and liaison between third-party agencies that purchase hearing aids and services for the student. Any questions about third-party services should be discussed with the audiologist at the time of an evaluation, a conference, or when the hearing aid station is open.

G. Sale of hearing aid batteries

Individual hearing aid batteries are sold to the student during the school day at the school store and/or from the machine outside the hearing aid station. Communications Department members will not personally sell batteries.

H. Earmold purchases

An earmold for the student's hearing aid is purchased by MSSD when the parent or third-party agency does not purchase a mold.

I. Earmold impressions

Earmold impressions are made at the hearing aid station.

1. Earmold impressions are made for the student's personal hearing aid and mailed to the student's hearing aid dealer with permission of the dealer and parent/guardian or paying agency.
2. The student's parent/guardian or paying agency is billed for the earmold by the dealer to whom the impression is sent.

J. Amplification for instructional areas

Appropriate amplification for instructional purposes is recommended for instructional areas. Teachers with requests, maintenance problems, or questions about amplification equipment should contact the audiologist or engineer.

K. Request for services

A request for any services can be made by a student, parent, or teacher by contacting the audiologist. The student's name, advisor,

date of the request, and a description of the service requested should be provided.

1. A hearing aid should not be left with the audiologist/engineer at any time without the above information attached.
2. The advisor and the parent/guardian are informed of any action taken.

Procedures for Hearing Aid Check

A. The audiometric hearing aid check includes at minimum:
   1. Recording of identifying information for each hearing aid
      a) Make
      b) Model
      c) Serial number
      d) Receiver type
      e) Battery information (type, number, usage, number on hand, where purchased)
   2. Recording of procurement information for each hearing aid
      a) Who recommended
      b) Date of purchase, where purchased (dealer)
      c) Who purchased
      d) Who maintains
   3. Identification of use information for each hearing aid
      a) Settings
      b) Adjustments
      c) Student's use of hearing aid (where, number of hours per day, attitude toward, etc.)
   4. Performance information for each hearing aid
      a) Audiometric testing
         1) Pure tones, aided and unaided
         2) Speech testing, aided and unaided
         3) Tympanometry and stapedial reflex testing
         4) Most comfortable levels and uncomfortable levels, aided and unaided

b) Electro-acoustic check of hearing aid

1) High frequency average full-on gain

2) Harmonic distortion

3) Frequency response graph

4) High frequency average saturation sound pressure level (HF Average SSPL 90)

5) Listening test

6) Comparison of electro-acoustic test data with manufacturer's specifications

5. Subjective information

a) Audiologist's statement of condition and functioning of the hearing aid

b) Student performance in educational, social, or other settings as reported by teachers and others

c) Complaints of student, parent, teachers, and others

B. A hearing aid check should be scheduled annually for all students. Student, teacher, parent, or involved agency may request a hearing aid check at any time.

C. The reporting form for the audiometric hearing aid check is completed for each student and copies are sent to:

1. CSS counselor
2. Academic advisor
3. Resident advisor
4. Any appropriate agencies
5. Communications Department file
6. Parent, on request

Forms

MODEL SECONDARY SCHOOL FOR THE DEAF

Gallaudet College
Kendall Green •Washington, D.C. 20002

HEARING AID EVALUATION SUMMARY

Name:
Parent/Guardian:
Address:

Home Telephone No.:
Parent Office Telephone No.:

Birth Date:
Date of Evaluation:
Age:
Residential Status:

Social Security No.:
Examiner:

Model Secondary School for the Deaf

Gallaudet College

Kendall Green
Washington, D.C. 20002

HEARING AID CHECK REPORT

Name: _____ Birthdate: _____ Age: _____

Parent/Guardian: _____ Date of Evaluation: _____

Address: _____ Social Security No.: _____

Home Telephone: _____ Residential Status: _____

Work Telephone: _____ Examiner: _____

Date MSSD Audiometric Evaluation: _____ Otoscopic Exam: _____

Summary/Comment: _____

HEARING AID INFORMATION: LEFT

Make: _____ Settings: _____

Model: _____

Serial No.: _____ Adjustments: _____

Receiver: _____

Battery: _____ Mold: _____

Recommended by: _____

Purchased by: _____

Date Purchased: _____

Maintained by: _____

Dealer: _____

Condition of Aid: _____

Student/Parent Complaint: _____

HEARING AID INFORMATION: RIGHT

Make: _____ Settings: _____

Model: _____

Serial No.: _____ Adjustments: _____

Receiver: _____

Battery: _____ Mold: _____

Recommended by: _____

Purchased by: _____

Date Purchased: _____

Maintained by: _____

Dealer: _____

Condition of Aid: _____

Student/Parent Complaint: _____

ELECTROACOUSTIC CHECK

H-F Avg SSPL90 _____

(90 dB SPL input) (1k, 1.6k, 2.5k)

☐ Acceptable ☐ Unacceptable

H-F Avg Full on Gain _____

(60 dB SPL input) (1k, 1.6k, 2.5k)

☐ Acceptable ☐ Unacceptable

Distortion

500 Hz _____

800 Hz _____

600 Hz _____

☐ Acceptable ☐ Unacceptable

Listening Check:

☐ Acceptable ☐ Unacceptable

Comments: _____

ELECTROACOUSTIC CHECK

H-F Avg SSPL90 _____

(90 dB SPL input) (1k, 1.6k, 2.5k)

☐ Acceptable ☐ Unacceptable

H-F Avg Full on Gain _____

(60 dB SPL input) (1k, 1.6k, 2.5k)

☐ Acceptable ☐ Unacceptable

Distortion

500 Hz _____

800 Hz _____

600 Hz _____

☐ Acceptable ☐ Unacceptable

Listening Check:

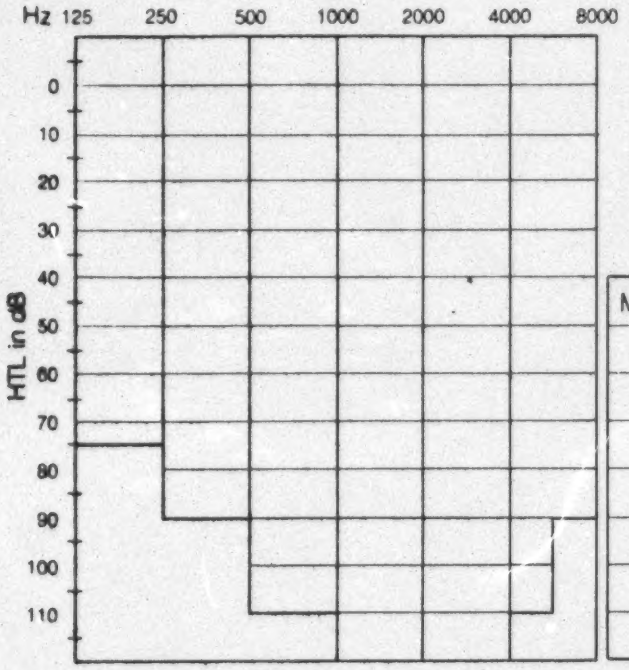
☐ Acceptable ☐ Unacceptable

Comments: _____

A — Aided Scores ___ R ___ L ___ B

U — Unaided Scores

PURE TONE AUDIOMETRY

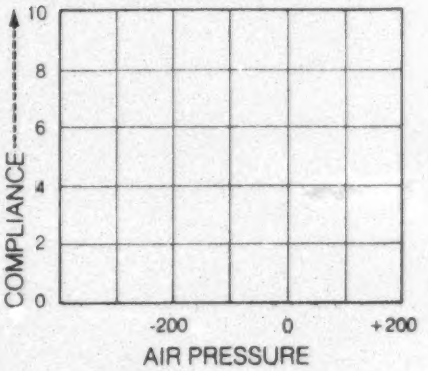


	Unaided	Aided
PTA		
SAT		
SRT		
MCL		
UCL		

SPEECH AUDIOMETRY

Material	Unaided	Aided

IMPEDANCE AUDIOMETRY



	500	1k	2k	4k
RE				
LE				

STAPEDIAL REFLEX

IMPRESSIONS:

RECOMMENDATIONS:

EXAMINER'S SIGNATURE AND TITLE:

cc:

Model Secondary School for the Deaf

Gallaudet College

Kendall Green • Washington, D.C. 20002

Date: _____

Dear _____

_____ has been seen for hearing testing at school. If you would like to discuss the results of the hearing tests or would like a copy of the audiometric report, please contact me at MSSD (202) 447-0413.

Generally, the hearing tests show:

- ☐ no change in hearing
- ☐ examination by ear doctor needed
- ☐ present hearing aid ok
- ☐ hearing aid repairs needed
- ☐ new hearing aid needed

Comments: _____

_____

_____

_____

_____

Sincerely,

Audiologist

Hearing Aid Lab Referral

Student Name: _____ Advisor _____ Date _____

Hearing Aid Make: _____ Model _____ Serial No. _____

Reason for Referral:

weak	cord	case cracked	other: _____
intermittent	receiver	volume control	_____
distorted	tubing	feedback	_____
noise	earmold		_____

Reviewed by Audiologist: _____ Date _____

Action Taken:

Reviewed by Engineer: _____ Date _____

Action Taken:

Action Summary:

___ Repairs completed at school
___ Aid retained in lab for repairs
___ Aid sent to dealer for estimate on repairs
___ Earmold impression made and sent to dealer
___ The following parts were loaned _____
___ A loaner aid was issued
___ Aid should be taken to dealer for repairs
___ Student should go to dealer for earmold impression
___ Parent will be billed for repairs and/or earmold
___ Request agency _____ payment for repairs/earmold/other _____
___ Request dealer estimate for repairs/earmold/other be sent to:
  ___ parent: _____
  ___ agency: _____
  ___ MSSD audiologist: _____

Student's hearing aid dealer:
Name _____
Co. Name _____
Address _____
_____
Telephone No. _____

cc: Parent
Advisor
Dealer
Agency
Communications Dept

Model Secondary School for the Deaf
Gallaudet College
Kendall Green
Washington, D.C. 20002

HEARING AID LOAN AGREEMENT

Model Secondary School for the Deaf
Gallaudet College
Washington, D.C. 20002

Date_____

Today I borrowed this hearing aid:

Make_____

Model_____

Serial No._____

I am responsible for this hearing aid. If I break it, MSSD will take my $25.00 security deposit to pay for fixing it. If I lose this hearing aid, MSSD will ask my parents to pay for the lost hearing aid. (Hearing aids cost $200 to $350.)

Loaned by:_____

Student:_____

Date returned_____

Returned to_____

Comments:_____

_____

_____

_____

_____

cc:

COMMUNICATIONS LAB

A Communications Lab under the supervision of an engineer and/or audiologist is maintained in the Communications Department.

Student Services

A. Facilities are available for the following student services:
   1. Routine hearing aid checks by students during daily hearing aid station hours
   2. Minor hearing aid repairs and service
      a) Battery check and purchase
      b) Tubing and cord checks and replacement
      c) Earmold cleaning and repair
      d) Earmold impression
      e) General functioning check
      f) Electro-acoustic checks
      g) General cleaning
   3. Troubleshooting and referral for major repairs
   4. Electro-acoustic analysis of a student's personal aid

B. Lab contacts are reported to parents, advisor, and involved paying agencies.

C. No hearing aid should be left in the Lab without a Hearing Aid Lab Referral form attached to it.

Audiological and Technical Support

In addition to direct student services, the Communications Lab maintains facilities for the following services:

A. Calibration and maintenance of auditory training, diagnostic, instructional, and therapeutic equipment

B. Consultation with faculty for equipment fitting, applications, and audio system design

C. Design and development of technology for specific diagnostic, therapeutic, and/or instructional applications

D. Evaluation of commercially available equipment

E. Instruction of students and staff in operation and theory of hearing aid technology and related audio systems

Hearing Aid Lab Referral Procedures

A. A hearing aid is brought to the Communications Lab during the hearing aid station hours.

B. An audiologist completes electro-acoustic, listening, and general checks of the hearing aid.

C. If the hearing aid is found to be malfunctioning, an attempt is made to identify the source of the problem.

D. To correct the problem, minor adjustments or repairs are made by the audiologist.

E. If the source of the problem cannot be identified, or the audiologist cannot make necessary repairs, the hearing aid is referred to the engineer.

1. Hearing Aid Lab Referral form is completed.
2. Relevant test data is attached.
3. Hearing aid, form, and relevant data are enclosed in the envelope provided and placed in the lab referral "in" box.
4. A hearing aid should not be left in the lab without relevant information attached.
5. A hearing aid should only be left in a locked "in" box.

F. On receipt of the hearing aid the engineer reviews the Hearing Aid Lab Referral form and test data. The engineer makes additional tests as necessary.

G. When the source of the problem is identified, the engineer makes repairs or indicates that the hearing aid should be sent to the dealer/manufacturer for repairs.

H. If the hearing aid is to be sent out for repair, two B&K print-outs are made.
   1. One copy is attached to the Hearing Aid Lab Referral form for comparison after repairs.
   2. One copy is enclosed with the hearing aid when sent to the dealer/manufacturer for repairs.

I. The engineer records action taken and recommendations on the Hearing Aid Lab Referral form and returns the hearing aid to the referring audiologist.

J. The audiologist notes action taken, does appropriate follow-up, and returns the hearing aid to the student and/or makes arrangements for outside repairs.

K. The procedure for sending a hearing aid out for repairs varies depending on paying party, involved agencies, age of hearing aid, dealer warranty, and other considerations.

L. When action is completed, the Hearing Aid Lab Referral form is filed in the student's Communications Department file. Copies of the Hearing Aid Lab Referral form are sent to parents and other involved agencies.

Electro-Acoustic Check of Hearing Aids

A routine electro-acoustic check of a student's hearing aid is completed as part of the annual hearing aid check. An electro-acoustic check is

also completed when a student reports a malfunctioning hearing aid or as part of the routine hearing aid station procedures.

A. A general electro-acoustic check includes the following tests:
   1. High frequency average full-on gain
   2. Harmonic distortion
   3. Frequency response graph
   4. High frequency average saturation sound pressure level (HF Average SSPL 90)
   5. Listening test
   6. Comparison of electro-acoustic test data with manufacturer's specifications

B. An electro-acoustic check is conducted with the Fonix 5500 Test Set using the following procedures:
   1. Preparation (for all tests except HF Average SSPL 90)
      a) Hearing aid is set for maximum gain. Tone control, peak clipping (PC), and/or automatic gain control (AGC) are set to yield the widest frequency range and maximum output (PC/AGC off and tone control set for normal response).
      b) Earmold is removed. The hearing aid is coupled to the test set's artificial ear and positioned with the microphone inlet centered on the floor of the test box. (The receiver of a body aid is coupled to the artificial ear. The microphone of the body aid is centered on the floor of the test box. Both artificial ear and receiver are placed outside of the box.)
      c) Test box lid is closed and locked. (Cords of a body aid will not be damaged by lid.)
      d) Source frequency is set at 1 kHz.
      e) Source amplitude is set at 60 dB for all tests other than HF Average SSPL 90. If the hearing aid goes into saturation with source amplitude of 60 dB, a 50 dB source amplitude should be used.

Note: At full-on gain, some hearing aids may become saturated with a source amplitude of 60 dB and give erroneous data. To test whether a hearing aid is going into saturation, amplitude is decreased by 10 dB in two 5 dB steps by pressing the source amplitude "down" button twice. The hearing aid's output (indicated by the readout labelled "microphone") should follow the two 5 dB step decreases within 1 dB. If not, a source amplitude of 50 dB is used.

2. HF Average Full-on Gain Test

   a) The "start" button is pressed. Fifteen test frequencies are presented to the hearing aid at a constant amplitude. The print-out indicates the hearing aid's output at each test frequency and the total harmonic distortion (THD) at six frequencies.

   b) HF Average Gain is computed by averaging the difference between input and output at 1 kHz, 1.6 kHz, and 2.5 kHz. The average is noted on Hearing Aid Check form.

   c) This average is compared with manufacturer's specifications. Allowable tolerance is within 5 dB.

   d) A hearing aid which does not meet manufacturer's specifications should be referred to the engineer for further analysis.

3. Harmonic Distortion Test

   a) Total harmonic distortion (THD) is indicated on the Fonix printout at six frequencies. THD should be less than 8% at all frequencies except 500 Hz which may have a THD as high as 20%.

   b) The distortion figures at 500 Hz, 800 Hz, and 1,600 Hz are entered on the Hearing Aid Check form.

   c) A hearing aid with excessive THD should be referred to the engineer for further analysis.

4. Full-on Gain Curve Test

   a) The frequency response curve (output versus frequency) is printed by pressing "Graph" and then "Start."

b) Relative output at each of the fifteen test frequencies is denoted by an asterisk printed within the 10 dB dynamic range of the printout.

c) Turned horizontally, the print-out should be comparable to the manufacturer's frequency response plot for that hearing aid. A hearing aid that shows deficient high or low end response and/or isolated peaks of greater than 8 dB should be referred to the engineer for additional analysis.

5. HF Average SSPL 90 Test

a) Maintaining the same hearing aid full-on settings (see: #1a above), the source amplitude is raised to 90 dB by pressing the source amplitude "Up" button.

b) The resultant output is averaged at 1 kHz, 1.6 kHz, and 2.5 kHz.

c) The average must be within 4 dB of the manufacturer's specified value for HF Average SSPL 90.

d) A hearing aid that does not meet manufacturer's specified value should be referred to the engineer for additional analysis.

6. Listening Test

a) The hearing aid's output is monitored. For body aids, the personal earmold is attached to the receiver of the hearing aid; for ear-level aids, the personal earmold is attached to the hearing aid's listening tube. A recorded test can be used.

b) While monitoring the hearing aid output, the volume control is rotated and the on/off/telephone switches are tested. (Telephone pick-up function may be tested using a real dial tone.) By listening, the hearing aid is tested for contact noise, high noise floor, intermittent operation, and overall quality.

c) While monitoring, the orientation of the hearing aid should be abruptly changed. Any noises or other problems associated with movement of the hearing aid should be noted.

d) Whether the hearing aid's performance on the listening test is acceptable or unacceptable is noted on the Hearing Aid Check form.

e) If the performance is unacceptable or if any questions remain about the hearing aid's performance, the hearing aid should be referred to the engineer for further analysis.

OTOLOGIC SERVICES

Procedures

A. An MSSD student is seen by Gallaudet's consulting physician for otologic examinations:
   1. Upon admission to MSSD
   2. As an MSSD senior
   3. As part of a hearing aid evaluation
   4. Upon referral from audiologists or the MSSD nurse

B. The student's appointment with the consulting physician is scheduled by an MSSD nurse.

C. A consultation request form is completed with one copy forwarded to the student's Communications Department file and one copy to the student's medical file.

D. A Federal Food and Drug Administration (FDA) form is completed and signed by the consulting physician when a hearing aid is recommended. The FDA form is attached to the hearing aid evaluation summary when it is sent to the paying agency and/or dealer. A copy is retained for the student's Communications Department file.

Forms

THE MODEL SECONDARY SCHOOL FOR THE DEAF
COMMUNICATION DEPARTMENT

CONSULTATION REQUEST

RE:_____ DATE:_____
STUDENT NAME

INITIATED BY:_____

WITH:_____

_____

_____

_____

_____

COMMENTS:

_____

_____

MEDICAL CLEARANCE FORM

(to be completed by the physician)

I have medically evaluated _____ hearing loss and this person may be considered a candidate for a hearing aid.
(patient's name)

Physicians Signature _____

Print name _____

Address _____

City _____

State _____ Zip _____

Telephone _____ Date _____

NHAS, 1977

WAIVER OF MEDICAL EVAULATION REQUIREMENTS

(for use only by those who are 18 years of age or older)

I have been advised by _____ that the Food and Drug Administration has determined that my best health interest would be served if I had a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear) before purchasing a hearing aid.
(hearing aid dispenser's name)

I do not wish a medical evaluation before purchasing a hearing aid.

Signature _____

Print name _____

Address _____

City _____

State _____ Zip _____

Telephone _____ Date _____

NHAS, 1977

TRAINING PROGRAM

Audiology Practicum for Graduate Students of an Affiliated University

A. Types of experience available

1. Diagnostic
   a) Pure-tone testing
   b) Impedance battery
   c) Audiometric speech testing
   d) Hearing aid evaluations
   e) Others as required
2. Habilitation
   a) Hearing aid fitting
   b) Hearing aid orientation
   c) Individual and group auditory training
   d) Participation in interdisciplinary instructional programs
   e) Participation in team-oriented instructional activities
3. Technical support activities
   a) Hearing aid analysis
   b) Routine maintenance of hearing aids and amplification systems
   c) Noise control for optimum instruction
4. Recordkeeping
   a) Diagnostic evaluation summaries
   b) Hearing aid check summaries
   c) Parent contact summaries
   d) Lesson/therapy plans
   e) Progress reports
   f) Correspondence with teachers, advisors, counselors, and involved agencies

B. Student requirements

1. A student must be a second-year student or a first-year student with previous clinical practicum experience in audiology.

2. A student must possess a degree of sophistication which enables him or her to execute a typical routine diagnostic test battery (pure-tone air and bone, SRT, speech discrimination, impedance battery) with minimal supervision.
3. A student must have familiarity with hearing aid evaluation techniques, hearing aids, and related terminology.
4. A student must possess the maturity to function independently and/or to initiate the types of experience desired.
5. A student must have an interest in obtaining clinical clock hours primarily in auditory rehabilitation; or define and agree on clinical experiences desired prior to initiation of the practicum period.
6. A student must be aware that diagnostic experiences will vary according to the student's and/or program's needs and may at times be of an experimental nature.
7. A student must have a willingness to participate in a team-oriented, student-centered educational program.
8. A student should have prior experience or coursework and/or an interest in the educational process and adaptation of audiologic services for enhancement of an educational program.
9. A student should have a basic knowledge of communication methods used by the deaf and should have minimal skill and/or a basic course in manual communication.

C. Administrative considerations

1. Supervision
   a) Internal supervision is provided by MSSD staff.
   b) Supervisors have the Certificate of Clinical Competence in Audiology (CCC-A) in student practicum supervision.
2. Hours
   a) A student is responsible for maintaining records of his or her clinical experience for his or her university program.
   b) A copy of all records should also be provided for MSSD.

3. Recordkeeping

   a) All diagnostic and hearing aid evaluation reports must be completed and approved by the supervisor within one week of testing.

   b) All other reports (one-week lesson plans, etc.) must be completed and approved according to the deadline set.

   c) All diagnostic reports must conform to the form designated by MSSD.

   d) A student is responsible for initiation and completion, as feasible, for all follow-up activities of a diagnostic evaluation.

4. Student status

   a) A student may designate either clinical practicum or observation status.

   b) A student assigned for clinical experience for obtaining American Speech and Hearing Association (ASHA) hours is expected to meet designated prerequisite and performance requirements.

   c) A student assigned for practicum experience for ASHA hours is supervised by an MSSD faculty/staff member who holds the CCC-A from ASHA.

   d) A student assigned for observation only is expected to write observations and participate in clinical activities as assigned.

   e) A student assigned for observation only may acquire some ASHA hours, but MSSD staff/faculty do not have the responsibility for seeing that these hours are acquired or recorded.

5. Student evaluation

   It is the responsibility of the university program to inform the practicum supervisor of reporting and grading deadlines, format for evaluation of trainees, and any other specific procedure or format.

6. Student assignments
   a) Student assignments should be for a minimum of one full day (9:00 to 4:00) or two half-days per week and a maximum of three full days per week.
   b) All half-day assignments are for morning hours only (9:00 to 12:30).
7. All placement procedures must adhere to the MSSD policies of practicum experiences (see: Policy Statement--Practicum Experiences at the Model Secondary School for the Deaf). After discussion of practical details by internal and external supervisors, a letter of agreement is sent from the Director, Division of Education, MSSD, to the student's university supervisor.

Policy Statement: Practicum Experiences at the Model Secondary School for the Deaf

The Model Secondary School for the Deaf cooperates with colleges and universities to provide training experiences for students enrolled in teacher education and other professional preparation programs for the hearing impaired.

A. Responsibilities of the cooperating college or university
   1. Selecting the practicum student
   2. Selecting the external supervisor
   3. Initiating the preliminary discussion with the MSSD (Director, Divison of Education)
   4. Arranging for the periodic visits by the external supervisor
   5. Providing evaluation feedback to the MSSD concerning the student's placement

B. Responsibilities of the MSSD
   1. Monitoring the practicum experience
   2. Selecting the internal supervisor

3. Writing the letter of agreement
4. Evaluating the student's program and performance
5. Providing feedback to the college/university

C. Definition of terms

1. Practicum

A practicum is a carefully planned phase of professional preparation usually carried out in conjunction with a student's academic course work. The practicum experience should reflect the student's academic training, previous experiences, and professional goals. It should provide under direct, close supervision a highly focused setting in which a student may practice a specific set of skills.

The practicum assignment should be of adequate length so a student may receive sufficient knowledge and experience through planned observation and participation. Competent supervision should be a joint responsibility between the college/university and the MSSD.

2. Internal Supervisor

The internal supervisor is the MSSD professional staff member who is selected cooperatively by the MSSD and the college/university to provide training for the practicum student.

Direct, close supervision is normally necessary during a practicum experience. Beginning with the student's observation period and continuing through the stages of a student's practicum, the internal supervisor should work closely with the student. In doing so the internal supervisor should exhibit:

a) an accepting attitude toward the student
b) an expectation of professionalism from the student
c) an understanding of the student's insecurities in practicum experiences

d) a helpful attitude toward the student

e) a willingness to share materials and plans with the student

f) a degree of permissiveness in allowing a student to experiment

The relationship of the internal supervisor to the student should ensure that knowledge and skills possessed by the internal supervisor are conveyed to the student, and immediate and effective feedback is provided to the student during the period of the practicum.

3. External Supervisor

The external supervisor is either the major advisor or a faculty member appointed by the cooperating college/university to ensure:

a) the practicum experience is successful

b) the evaluation of the student is completed

c) evaluative feedback of the placement is provided to the Director, Division of Education, MSSD

D. Procedures for Placement

The following procedures are normally followed in placing an individual at the MSSD for the purpose of practicum experiences.

1. Liaison responsibility

The Director of the Division of Education, MSSD, serves as the principal liaison between the college/university and MSSD personnel. Liaison responsbility involves coordinating and monitoring administrative aspects of the practicum from the initial meeting (see: #2 below) to the completion or termination of the practicum. Additionally, the Director is responsible for ensuring that commitments made by the MSSD are kept.

2. Preliminary discussion

The external supervisor meets with the Director of the Division of Education and the person(s) who will be involved in the practicum

at the MSSD to discuss the principles of the placement. During this meeting the matters covered in the letter of agreement (see: #3 below) are discussed and an agreement reached on the placement of the student.

3. Letter of agreement

The practical details of the practicum are incorporated in a formal letter of agreement between the college/university and the MSSD. The agreement is sufficiently specific so that the MSSD, the student, and the university will be able to adequately evaluate the practicum.

Responsibility for writing the agreement is that of the Director of the Division of Education, MSSD, who sends a copy to the college/university supervisor for his or her approval or changes. Both the college/university and the MSSD must approve the agreement in writing prior to the initiation of the practicum.

E. Evaluation

The internal supervisor is expected to provide the college/university and the Director of the Division of Education, MSSD, with a written evaluation of the student's program and performance. The external supervisor is expected to provide the type of evaluation required by the college/university for practicum experiences. The evaluation report should be factual, honest, and objective.

Internships

In addition to providing practicum experiences to graduate students, the MSSD sponsors a limited number of internships annually. The number of such internships depends primarily upon availability of funds.

A. Description

An internship is defined as a full-time, temporary professional position providing mutual benefit to the institution and to the intern. Normally, an intern is nearing completion of a doctoral degree, with the internship being the final phase of his or her program. Interns in such fields as educational administration, curriculum development, research, or related fields are considered.

B. Duration

Internships may be scheduled for a period of time up to one calendar year but would normally not exceed one academic year.

C. Guidelines

In general, the practicum guidelines are followed for internships. However, arrangements for each internship are individually tailored to meet the specific needs of the intern. (See: Audiology Practicum for Graduate Students of an Affiliated University)

D. Application procedures

Persons wishing to apply for an internship at the Model Secondary School for the Deaf should send a current curriculum vita with a letter indicating their specific interests, needs, and objectives for the internship. Additionally, the letter should include projected timelines and other information the prospective intern wishes to include.

E. Compensation

The compensation for an internship is approximately $12,000 for an academic year, depending upon qualifications.

F. Contact

Model Secondary School for the Deaf
7th and Florida Avenue, N.E.
Washington, D.C. 20002

Clinical Fellowship Year (CFY)

A. Description

The Model Secondary School for the Deaf sponsors one (1) Clinical Fellowship Year in audiology (CFY) annually. The CFY audiologist participates in direct clinical services to hearing impaired adolescents. Responsibilities include experimental and routine diagnostic evaluation, hearing aid evaluation and fitting, auditory habilitation, and classroom activities. (see: Policy Statement--Practicum Experiences at the Model Secondary School for the Deaf)

B. Supervision

Direct clinical supervision is provided by MSSD audiologists holding the Certificate of Clinical Competence.

C. Requirements

The program is structured to meet CFY requirements for the Certification of Clinical Competence of the American Speech and Hearing Association.

D. Compensation

The compensation range for a CFY audiologist is approximately $12,000 for an academic year depending upon qualifications.

E. Contact

Personnel Services
Model Secondary School for the Deaf
7th and Florida Avenue, N.E.
Washington, D.C. 20002

Forms

POSITION DESCRIPTION

POSITION TITLE: Clinical Fellowship Year (CFY) Audiologist

DIVISION: Education

SUPERVISOR: CCC Audiologist

DEPARTMENT: Communications

APPROVED: _____
Coordinator, MSSD Personnel Services

APPROVED: _____
Division Director

APPROVED: _____
Director, MSSD

GENERAL DESCRIPTION:

The CFY Audiologist performs experimental and routine diagnostic evaluations and hearing aid evaluations; fits hearing aids; and participates in auditory habilitation and classroom activities.

SPECIFIC RESPONSIBILITIES:

Conducts audiometric and hearing aid evaluations of MSSD students and fits students with appropriate hearing aids.

Conducts individual and small group hearing aid orientation and auditory training sessions; teaches Communication Department courses as requested; participates in classroom team teaching for the integration of auditory activities into the school-wide curriculum.

Participates in the school hearing aid check and maintenance program.

Maintains evaluation and therapy records.

Writes various reports related to hearing aid and audiometric evaluations.

Counsels parents regarding hearing aid use, diagnostic results, and therapy.

Works with outside agencies in procuring hearing aids for students.

Improves skills and competencies by engaging in appropriate faculty/staff development activities; participates in Department meetings and activities.

Performs other related activities when requested by the Director of the Division of Education or the supervising Audiologists.

QUALIFICATIONS:

M.A. in Audiology

Three hundred clock-hours of supervised clinical experience, including a minimum of 50 clock-hours in evaluation and habilitation of severely to profoundly hearing-impaired children and adults in educational and habilitative settings.

Eligibility for CCC in Audiology.

Twenty-four semester hours of professional education in the following areas:

a. Auditory disorders: pathologies of the auditory system and assessment of auditory disorders and their effect on communication.

b. habilitative/rehabilitative procedures: selection and use of appropriate amplification instrumentation for the hearing impaired, both wearable and group; evaluation of speech and language problems of the hearing impaired; and management procedures for speech and language habilitation/rehabilitation of the hearing impaired, including manual communication.

Related coursework in the areas of human development, education, and/or psychology.

Fluency in manual communication or the interest in becoming fluent through faculty/staff development activities.

S A M P L E

Model Secondary School for the Deaf

Gallaudet College

Kendall Green • Washington, D.C. 20002

May 9, 1977

(University Administrator)
The George Washington University
Speech and Hearing Clinic
Washington, D.C. 20052

Re: (Student)

Dear (University Administrator):

The above-named student is accepted for placement for an audiology practicum in the Communications Department in the Division of Instruction of the Model Secondary School for the Deaf (MSSD). This placement is to fulfill the clinical hours requirements in the Audiology Program at the George Washington University.

The specific conditions of this placement are as follows:

1. Time

   The practicum will be undertaken from Monday, May 9, 1977 through Friday, June 24, 1977.

2. Stipend

   The student will not receive a stipend from the MSSD.

3. Hours of Work

   The student will work in the practicum from 8:30 a.m. to 4:00 p.m. on days agreed upon by the student and internal supervisor.

4. Aim of the Practicum

   This practicum will be directed toward rehabilitation and habilitation activities including:

   a. Hearing aid fitting
   B. Hearing aid orientation
   c. Auditory training
   d. Audiological support in interdisciplinary instructional programs
   e. Audiologic support in team-oriented instructional activities

5. Supervision

A. Internal

Supervision of the student is the responsibility of (Audiologist), MA, CCC-A, Audiologist, appointed by the MSSD. (Audiologist) will not receive additional pay for supervising the practicum.

B. External

The George Washington University has appointed (Supervisor) as external supervisor to the student. (He or she) will be available to consult with the MSSD staff during the placement.

C. Changes

Any change in the internal supervision and/or the structure of the practicum experience must be by mutual agreement of (Administrator) and (MSSD Special Assistant). Either (Administrator) or (MSSD Special Assistant) may terminate the practicum prior to its completion for justifiable cause. All parties involved in the termination should meet prior to the finalization of such termination. At the request of any of the parties, the Director of the MSSD will be included in the meeting.

6. Institutional Liability

At present, the MSSD has blanket insurance to protect the school, but carries no personal liability insurance for its employees or practicum students.

7. Recording

(Student) is required to keep a record of clinical hours accumulated each semester. (She or he) will submit a form to (Audiologist) showing those hours (he or she) was actively involved in clinical work under (Audiologist)'s supervision.

8. Evaluation

(Audiologist) will be expected to provide the George Washington University and the MSSD with a written evaluation of (Student)'s program and performance. The type of evaluation necessary will be provided by (Administrator).

(Administrator) will provide the MSSD with evaluation feedback regarding the practicum experience.

9. Confidentiality of Information

It is the responsibility of the student and the faculty of George Washington University to hold in strict confidence all information concerning the MSSD, its staff and its students. Any publication of information concerning the MSSD must have prior approval of the MSSD.

If the conditions of the practicum placement of (Student) meet with your approval, please sign the original and return to me. The copies are for your records and/or to share with (Student).

Sincerely,

Director
Division of Education
Model Secondary School for the Deaf

APPROVED: _____

DATE: _____